**37.How to analyse the data using pandas module in python?**

**Objective:**

* To see how to analyse data using python pandas module.

**Process:**

* **Pandas**

Pandas is an open-source Python Library used for high-performance data manipulation and data analysis using its powerful data structures.

High performance merging and joining of data

Its having tools for loading data into in-memory data objects from different file formats.

* **Pandas - Series**

Series is a one-dimensional array like structure with homogeneous data.

Size of pandas series is immutable

Values of pandas series data is mutable.

* **Pandas - Dataframe**

DataFrame is a two-dimensional array with heterogeneous data.

The size and data is mutable.

Using this data frame we can store our data in a table manner.

**Source code:**

#import pandas module

import pandas as pd

print("\*\*\*\*\*\*\*\*\*Pandas series\*\*\*\*\*\*\*")

#pandas series for sample data

data = pd.Series(['sathish','bala','naren','vivek','mano','suresh','

krishna', 'baai','mubarak','ussain'],

index = [25,26,25,23,30,29,23,23,25,25])

print("\n")

print(data)

print("\n")

#sample data

data={'name':['sathish','bala','naren','vivek','mano',

'suresh','krishna','baai','mubarak','ussain'],

'salary':[100,200,300,400,500,400,300,200,100,50],

'age':[25,26,25,23,30,29,23,23,25,25],

'rating':[4,3.24,2.5,2.25,2,2.25,2.5,2.75,3.2,4.2], 'bonus':[2500,1200,900,3000,1800,1400,850,250,750,

1000]}

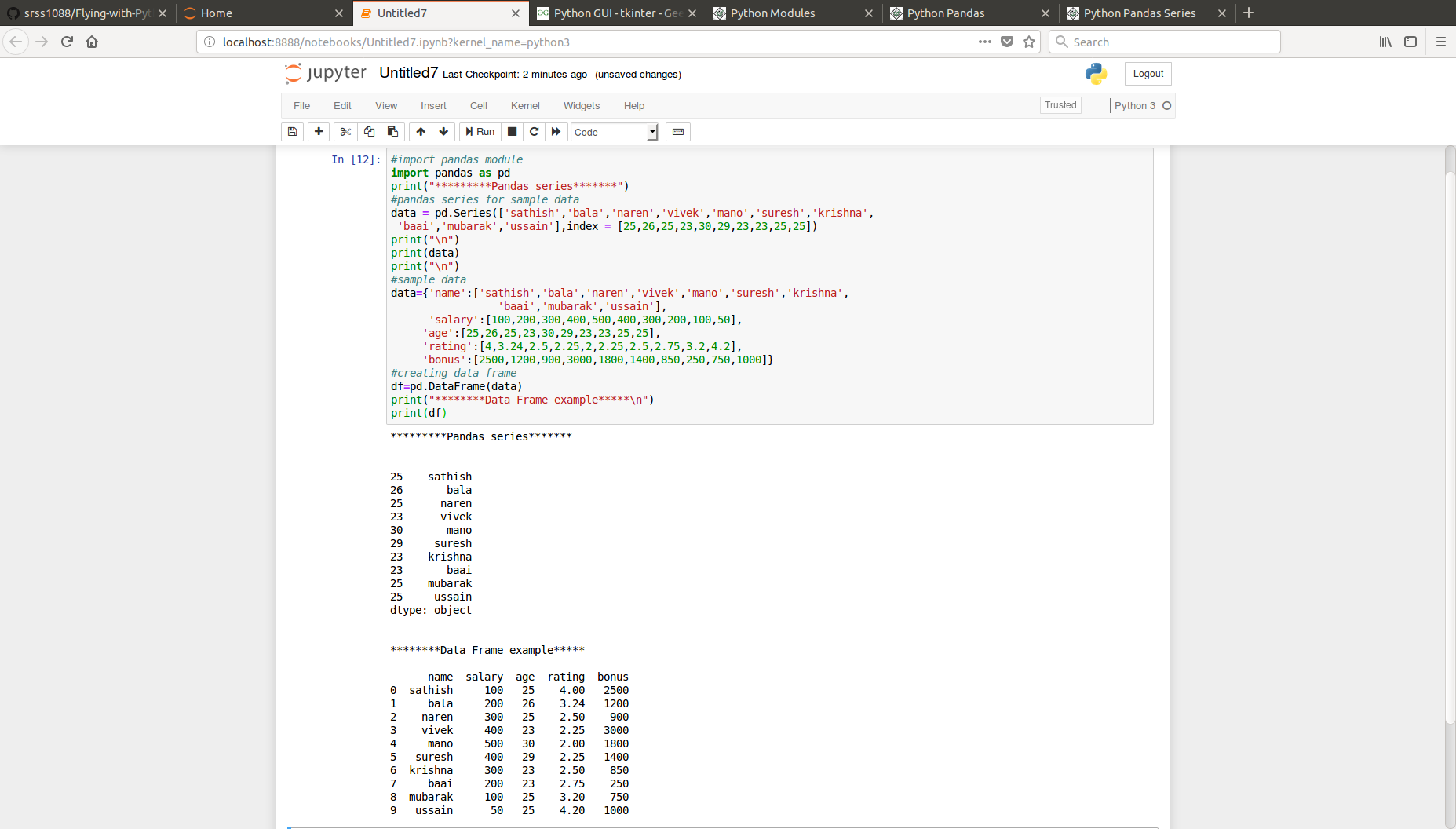
#creating data frame

df=pd.DataFrame(data)

print("\*\*\*\*\*\*\*\*Data Frame example\*\*\*\*\*\n")

print(df)

**Screen shots:**

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